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*UNIVERSITY AND EDUCATIONAL NEWS*

MR. J. PIERPONT MORGAN has given \$200,000 to Trinity College for the erection of a library and administration building.

MR. JAMES B. BRADY, of New York City, has given \$200,000 for the establishment of the Urological Institute at the Johns Hopkins Hospital. He has also undertaken to provide an endowment for the institute.

THE sum of \$60,000 has been given by an anonymous New York citizen toward the \$800,000 which Smith College is undertaking to obtain in order to receive \$200,000 from the General Education Board.

THE new library building of the Ohio State University, built at a cost of \$250,000, is nearing completion. While an additional appropriation will be needed to complete the equipment, the greater part of the library, which consists now of more than 115,000 volumes, will be moved into the new building within a few weeks.

WORK on the stone foundation of the new University of Illinois armory is well under way. The interior dimensions of the armory will be 200 by 350 feet. The building under construction is not the complete building, but merely the drill room.

ST. LOUIS UNIVERSITY is building an addition to the Medical School, which will accommodate the offices and library and new laboratories for animal experimentation. It will cost about \$10,000.

THE dean of Johns Hopkins Medical School announces that it has become necessary to limit the number of students owing to the limited space and facilities in the various laboratories. The present enrollment is 355, the largest in the history of the school, and fifty other students were refused admittance prior to the beginning of the session.

THE enrollment of students in the Ohio State University this year is 3,243, of whom 780 are in the College of Engineering.

SEVERAL members of the faculty of Western Reserve University will receive in certain special classes, during the semester October, 1912, to February, 1913, men and women who

are teachers of the high schools and other schools of Cleveland and vicinity, and others interested in such courses.

THOMAS WINGATE TODD, M.B., Ch.B., F.R.C.S., at present lecturer in anatomy at Victoria University, Manchester, England, has been appointed Henry Willson Payne professor of anatomy in the medical department of Western Reserve University. Professor Todd will take up his duties at Cleveland about December 10.

DR. CHARLES LINCOLN EDWARDS has been appointed professor of embryology and histology in the medical department of the University of Southern California, and has been made director of the department of nature-study in the Los Angeles public schools.

THE Ohio State University, Columbus, has the following new members in the faculty of the College of Engineering: Forrest K. Pence, professor of ceramic engineering; A. E. Flowers, professor of electrical engineering, and R. A. Brown, instructor in electrical engineering. The following members have been promoted to the rank of professor: Homer F. Staley, ceramic engineering; James R. Withrow, chemistry; Robert F. Earhart, physics; Frederic C. Blake, physics; Samuel J. Barnett, physics, and Edwin F. Coddington, mechanics.

THE following changes have been made in the faculty of the New York State Normal College at Albany: Dr. Leonard A. Blue, formerly professor of education at Goucher College, has been appointed dean and professor of education in place of Dr. William B. Aspinwall, who resigned to become principal of the State Normal School at Worcester, Mass.; Dr. George S. Painter has been appointed professor of philosophy and psychology to succeed Professor Alfred J. Rejall, now assistant in psychology at Columbia University; Professor Herbert M. Douglass, formerly of Cornell University, has been appointed instructor in mathematics and mechanical drawing.

THE following recent appointments in St. Louis University School of Medicine have

been made: John Zahorsky, M.D. (Missouri Medical College), professor of children's diseases; Paul M. Carrington, M.D. (College of Physicians and Surgeons, Baltimore), of the Marine Hospital Service, professor of hygiene; Joseph Grindon, M.D. (St. Louis Medical College), professor of dermatology; George Ives, M.D. (Johns Hopkins University), assistant professor of bacteriology; A. M. Brown (Washington University), instructor in biology.

THE School of Botany of the University of Texas announces the following changes and promotions: Dr. F. D. Heald, professor of botany, resigned to become pathologist to the Chestnut Tree Blight Commission of Pennsylvania; Dr. I. M. Lewis, promoted from instructor to adjunct professor; Dr. Frederick McAllister, instructor in botany, Cornell University, appointed instructor; Mr. Charles H. Winkler appointed by the board of regents to act as chairman of the school faculty for the term of two years.

#### DISCUSSION AND CORRESPONDENCE

##### AN ELECTROMOTIVE FORCE DUE TO MECHANICAL ACCELERATION

TO THE EDITOR OF SCIENCE: From well-known mechanical principles it follows that when a solid body is given an accelerated motion each particle of the body is acted upon by a force having a direction opposite to that of the acceleration. In magnitude this force is equal to the product of the acceleration and the mass of the particle.

Applying this to the modern conception of "free electrons" in metals, it is clear that when a piece of metal is given an accelerated motion each electron within it should experience a force tending to move it and this force will be equivalent to an electromotive force. The magnitude of the latter is easily calculated.

The equivalent electromotive force in volts per cm. is

$$V = \frac{300a}{\left(\frac{e}{m}\right)},$$

where  $V$  = volts per cm.

$e$  = charge of an electron in electrostatic units.

$m$  = mass of electron.

$a$  = the acceleration given to the metal.

That this equivalent electromotive force is not too small to be detected with appropriate apparatus can readily be shown. If a coil of wire is caused to oscillate rapidly about its own axis, for instance, the electromotive force of each turn is added to that of the next and thus the effect can be enormously magnified over what it would be in the case of one turn. An alternating electromotive force should be generated which when commutated would be within the range of a good galvanometer.

Whether the result of such an experiment were positive or negative it would be of great interest for modern theory, for in case it were positive it would give *directly* the *value* of  $e/m$  for the electrons within a metal, and if it were negative it would clearly indicate the falsity of some part of the modern theory.

The apparatus for such an experiment has been for some time in process of construction and I hope before long to report on the results.

D. E. COMSTOCK

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,  
September 25, 1912

##### REVERSION OF AMBLYSTOMA

TO THE EDITOR OF SCIENCE: The following note on the reversion of adult *Amblystoma*, to the larval axolotl stage, may be of interest to students of amphibia.

A number of years ago, when the writer was a boy residing at Colorado Springs, he confined some "water-dogs" (*Amblystoma*), for a period of four or six weeks, in an artificial pool of water of small diameter. The pool was so fenced that the animals were unable to escape, though they repeatedly endeavored to do so. This enforced residence in the water seemed to effect in them a distinct transformation; the color became duller, the tail broader, the head assumed a more triangular form, and back of the head on each side of the neck, there appeared small, bluish knobs. These